

Claims amendments:

1. (previously presented) A method of communications between slave devices in a communication network, said method comprising the steps of:

establishing a non-frequency-hopping connection link between a first slave device and a second slave device if said non-frequency-hopping connection link is available; and

establishing or maintaining a frequency-hopping connection link, said non-frequency-hopping connection link is unavailable.

2. (previously presented) The method of claim 1, wherein the communication network has a plurality of frequency channels for establishing the connection links, said method further comprising the step of

measuring channel conditions in at least a portion of the plurality of frequency channels for determining whether said non-frequency-hopping connection link is available based on the measured conditions.

3. (previously presented) The method of claim 2, wherein the channel conditions include carrier power of the measured channel, and interference and noise levels affecting the non-frequency-hopping connection link.

4. (original) The method of claim 2, wherein the measurement of the channel conditions is carried out by the first slave device.

5. (original) The method of claim 4, further comprising the step of providing the first slave device a plurality of measurement parameters, including measurement time and frequencies to be measured, wherein the first slave device measures the channel conditions based on the measurement parameters.

6. (previously presented) The method of claim 4, wherein the communications network comprises a master device for communicating with the slave devices, said method further comprising the step of providing the master device a measurement report including results of the channel condition measurements.

7. (original) The method of claim 6, further comprising the step of selecting a frequency for establishing said non-frequency-hopping connection link based on the measurement report.

8. (original) The method of claim 7, further comprising the step of providing the first slave device and the second slave device a plurality of channel parameters including the selected frequency.

9. (original) The method of claim 8, wherein the channel parameters further include a modulation code rate.

10. (original) The method of claim 8, wherein the channel parameters further include a quality of service requirement.

11. (currently amended) The method of claim 3, wherein whether the frequency communication channel for said non-frequency-hopping connection link is available is also determined based on transmission power of the first slave device.

12. (currently amended) The method of claim 3, wherein whether the frequency communication channel for said non-frequency-hopping connection link is available is also determined based on transmission power of the second slave device.

13. (currently amended) The method of claim 4, wherein the communication network has a master device for communicating with the slave devices, said method further comprising the step of the first slave device sending a request to the master device requesting establishment of said non-frequency-hopping connection link.

14. (previously presented) A system for adaptive allocation of communications channels between two slave devices in a communications network, said system comprising:

    a first mechanism for determining whether a non-frequency-hopping connection link between a first slave device and a second slave device is available;

    a second mechanism for establishing the non-frequency hopping connection link between the first slave device and the second slave device if the non-frequency-hopping connection link is available; and

a third mechanism for establishing or maintaining a frequency hopping connection link between the first slave device and the second slave device the non-frequency-hopping connection link is unavailable.

15. (currently amended) The system of claim 14, wherein the communications network has a plurality of frequency channels for establishing the communication links, and wherein the first mechanism determines whether the the non-frequency-hopping connection link is available based on channel conditions including carrier power of the frequency channels and interference and noise levels, which may affect the non-frequency-hopping connection link, said system further comprising a fourth mechanism for measuring the channel conditions.

16. (original) The system of claim 15, wherein the channel conditions are measured based on a plurality of measurement parameters including measurement time and frequencies to be measured.

17. (previously amended) The system of claim 15, wherein the communications network comprises a master device for communicating with the slave devices, said system further comprising a further mechanism for providing the master device a measurement report including results of the channel condition measurements for allowing the master device to select a frequency for establishing said non-frequency-hopping connection link based on the measurement report.

18. (original) The system of claim 15, wherein the first mechanism determines whether the communication channel for the non-frequency-hopping connection link is available also based on transmission power of the first slave device.

19. (original) The system of claim 15, wherein the first mechanism determines whether the communication channel for the non-frequency-hopping connection link is available also based on transmission power of the second slave device.

20. (previously presented) A slave device in a communications network, the communication network comprising a further slave device for communicating with the slave device, said slave device comprising:

a request mechanism for requesting a non-frequency hopping connection link between the slave device with the further slave device; and

a linking mechanism for

establishing said non-frequency hopping connection link to the further slave device if said non-frequency hopping connection link is available, and

establishing a frequency hopping connection link to the further slave device if said non-frequency hopping connection link is unavailable.

21. (previously presented) The slave device of claim 20, wherein the communications network has a plurality of frequency channels for establishing the non-frequency hopping connection link, said device further comprising

a measurement mechanism for measuring channel conditions in at least a part of the plurality of frequency channels for determining whether said non-frequency hopping connection link is available based on the measured conditions.

22. (previously presented) The slave device of claim 20, wherein the communications network comprises a master device for communicating with the slave device and the further slave device, and wherein the request for establishing the non-frequency hopping connection link is carried out through the master device.

23. (previously presented) The slave device of claim 22, wherein the communications network has a plurality of frequency channels for establishing the non-frequency hopping connection link, said device further comprising

a measurement mechanism for measuring channel conditions in at least a part of the plurality of frequency channels; and

a reporting mechanism for reporting a measurement report including results of the measured conditions to the master device so as to allow the master device to select a frequency channel for establishing said non-frequency hopping connection link based on the measurement report.